hat time, the entire area around Victoria Barracks was known as the Lachlan Swamps and it is believed that a prime consideration in choosing the site was because of the existance of Busby's Bore and the two access shafts already extended to the surface. This provided an adequate and readily available supply of fresh water for the regiment.

The architect of Victoria Barracks was Lieutenant Colonel George Barney of the Royal Engineers, who also designed Darlinghurst Gaol and Fort Dennison.

As the population grew, the demand for water was augmented by the introduction of the Botany System in 1859, and although it took over as the primary source of supply, Busby's Bore continued to serve parts of the city and Woolloomooloo. Pollution slowly began to infiltrate the system and eventually Busby's Bore was only used to flush creeks and ponds in the Botanic Gardens.

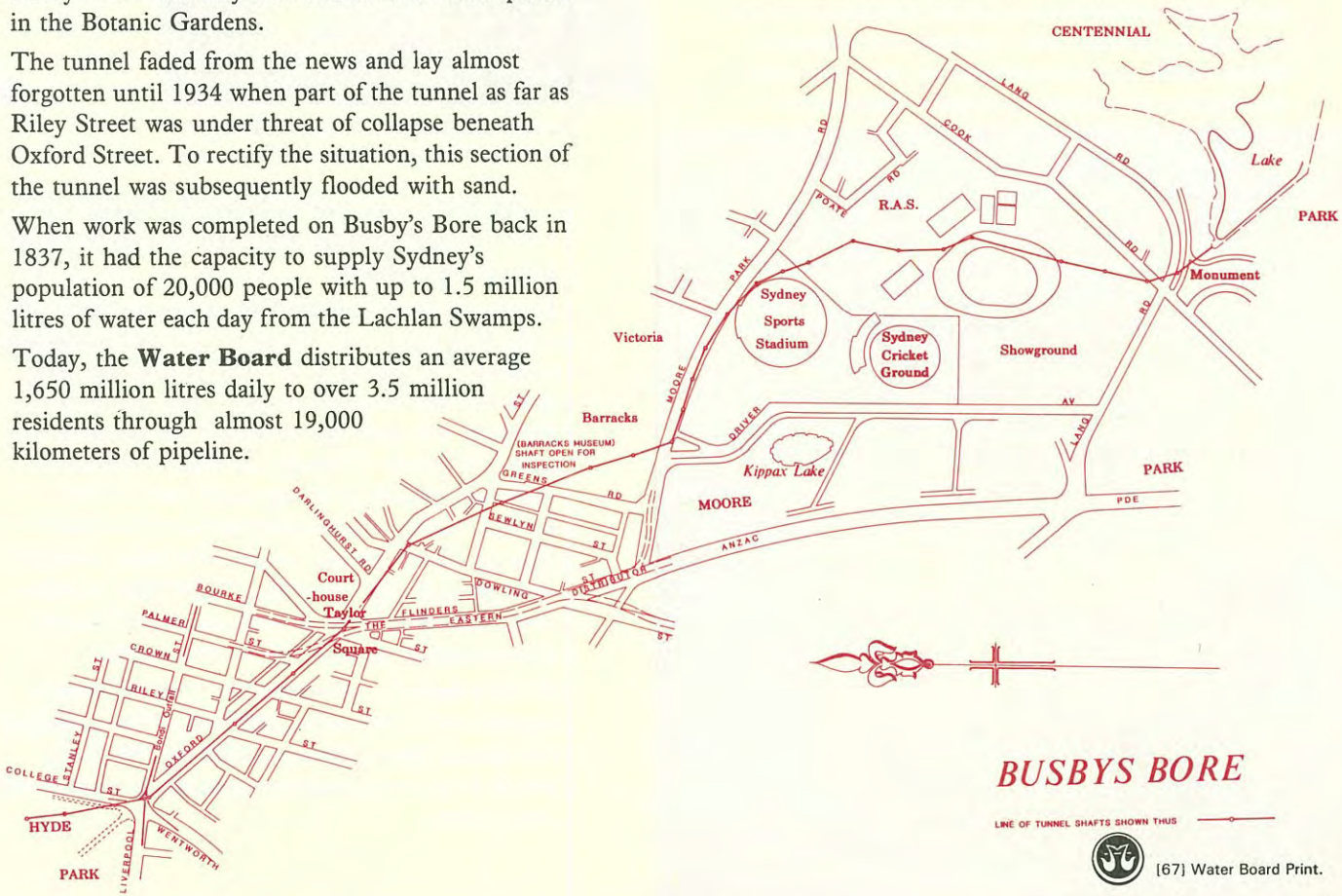
The tunnel faded from the news and lay almost forgotten until 1934 when part of the tunnel as far as Riley Street was under threat of collapse beneath Oxford Street. To rectify the situation, this section of the tunnel was subsequently flooded with sand.

When work was completed on Busby's Bore back in 1837, it had the capacity to supply Sydney's population of 20,000 people with up to 1.5 million litres of water each day from the Lachlan Swamps.

Today, the **Water Board** distributes an average 1,650 million litres daily to over 3.5 million residents through almost 19,000 kilometers of pipeline.

Above: *Excavated by Convicts, the Bore served Sydney for almost 60 years, until the first Nepean water service in 1886.*

Although a far cry from the humble 3.6 kilometers of tunnel hewn out from the rugged colonial terrain 160 years ago, Busby's Bore remains an enduring testimony to John Busby's imagination and a graphic reminder of Australia's colorful convict heritage.



BUSBYS BORE

LINE OF TUNNEL SHAFTS SHOWN THUS

[67] Water Board Print.

Busby's Bore

Sydney's first piped water supply

For Sydney's first settlers, the only source of fr water came from The Tank Stream, a small rivulet running through the centre of the fledgling colony. It was the life line for both convicts and free settlers alike.

As Australia's birthplace grew, the tiny tank stream began to fail, and with a rapidly expanding population pushing inland to the west, the dwindling water supply became so polluted by the 1820s, the very survival of the colony was at risk. An alternative and reliable supply of fresh water had to be found.

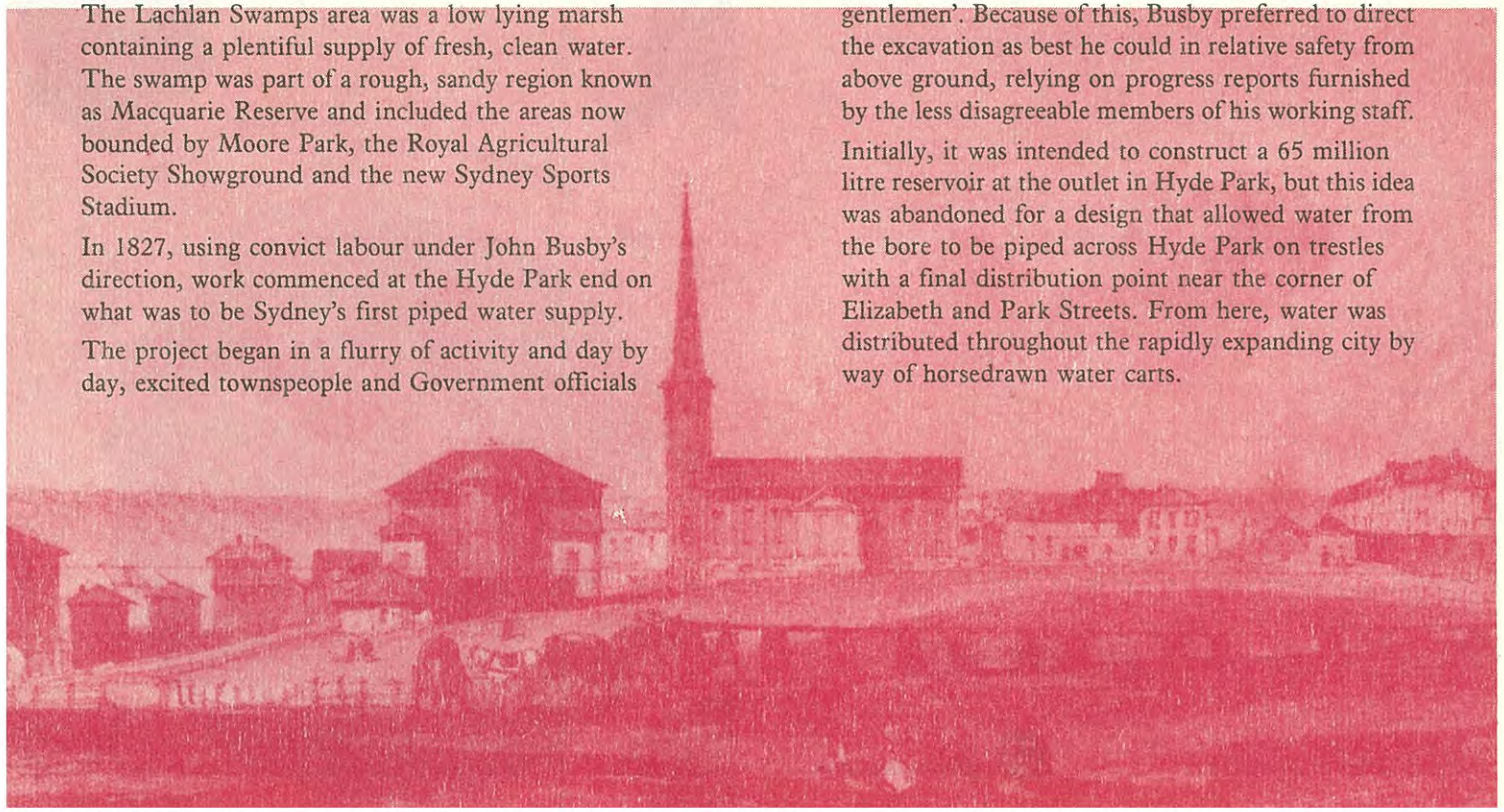
In 1824, Governor Darling allocated the task to John Busby, an engineer who had arrived in the colony to take up the position of Government Mineral Surveyor.

He proposed that water be taken from Lachlan Swamps (now Centennial Park) and from there, conveyed through an underground tunnel or 'bore' to the city centre for distribution at the colony's racecourse, the site of the present day Hyde Park.

The Lachlan Swamps area was a low lying marsh containing a plentiful supply of fresh, clean water. The swamp was part of a rough, sandy region known as Macquarie Reserve and included the areas now bounded by Moore Park, the Royal Agricultural Society Showground and the new Sydney Sports Stadium.

In 1827, using convict labour under John Busby's direction, work commenced at the Hyde Park end on what was to be Sydney's first piped water supply.

The project began in a flurry of activity and day by day, excited townspeople and Government officials



ited favourable reports as to the expected speedy progress by Busby and his teams of convict labourers.

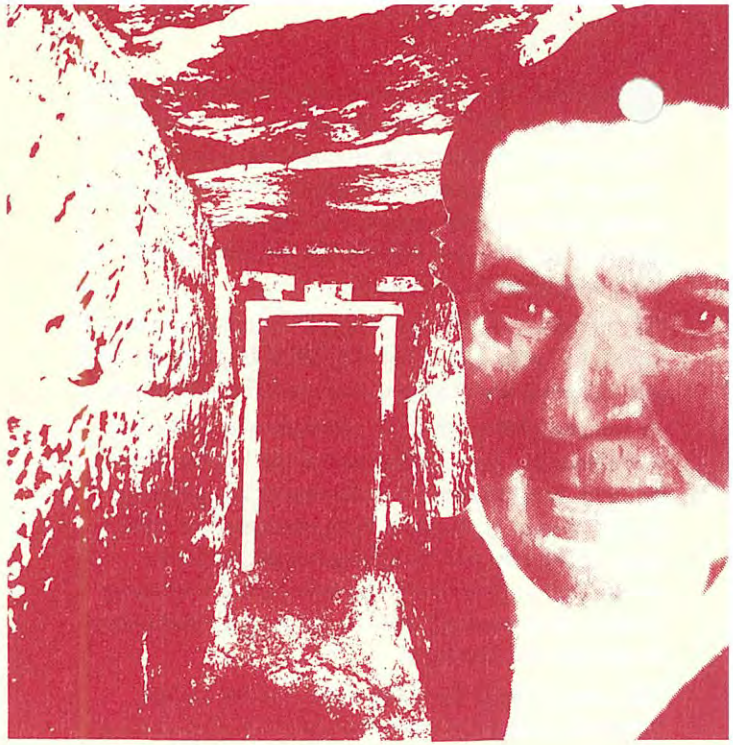
Estimations varied greatly as to the expected completion date but hopes were high as to the colony having its new clean water supply within a few years.

This, however was not to be. Because of unknown difficulties in the strata and what historians of the day described as problems with the 'unmanageable and unskilled character of the convict labour', the project was not completed until 1837....ten years later.

Excavated by hand, the bore stretches over a distance of 3.6 kilometers under the city and varies from 1.2 to 1.5 metres wide and is up to 3 metres high in places.

The tunnel follows a somewhat erratic course , and as recent explorations have shown, several dead-end 'spurs' are incorporated in the construction. This is due largely to the fact that although he was assisted in the work by his two sons, William and Alexander, Busby seldom went into the tunnel, as in the main, the majority of convicts were 'most disagreeable gentlemen'. Because of this, Busby preferred to direct the excavation as best he could in relative safety from above ground, relying on progress reports furnished by the less disagreeable members of his working staff.

Initially, it was intended to construct a 65 million litre reservoir at the outlet in Hyde Park, but this idea was abandoned for a design that allowed water from the bore to be piped across Hyde Park on trestles with a final distribution point near the corner of Elizabeth and Park Streets. From here, water was distributed throughout the rapidly expanding city by way of horsedrawn water carts.



Above: *John Busby and inside the Bore.*
Left: *Busby's Bore in Hyde Park.*

In the 1840s, construction began on the city's first water reticulation pipes, laid from the bore to various parts of the township.

During and after construction, numerous shafts and wells were tapped into the bore (28 have been located to date) including those at Victoria Barracks. The shaft that can be found in the corner of the barracks Museum was used once to supply the barracks with water. It is over 22 metres deep and when in use, water was hauled to the top using two 55 litre buckets. Teams of military prisoners were used to raise the water, the total weight of buckets, chain and water on each haul exceeding 1.200 kilos. Another shaft, now covered by extensions to the Officers' Mess, supplied water to the former hospital.

Victoria Barracks were the third military barracks constructed in the colony and in the 1830s, replaced the George Street barracks which had become a victim of the ever increasing demand for land in the town centre.